AMENDMENTS TO THE SPECIFICATION:

On page 1, immediately following the title please insert headings as follows:

BACKGROUND OF THE INVENTION

Field of the Invention

The paragraph beginning on page 1, line 6 has been changed as follows:

The ~~present~~ invention relates to reactive chlorine compounds such as dichloric acids, the intermediate product peroxochloric acid as well as peroxochlorous acid and their individual derivatives, anions, and/or salts. It further relates to processes for manufacturing these compounds and their use in the pharmaceutical field, here in particular, in medical treatment as drugs and disinfectants, in the fields of cosmetics and medicinal care as histocompatible deodorants, in the field of foodstuff treatment and technology, in particular in the preservation of foods and beverages, as a bleaching agent and for drinking water disinfection, in the antimicrobial treatment of plants and fruits in agriculture, and as an oxidizing agent in technical chemistry and for cleaning waste gas.

The paragraph beginning on page 3, line 18 has been changed as follows:

Theo Gilbert Hinze (US 20030133878, [[„]] "American Composition for the treatment of legionella pneumophila and a method for such treatment[["]]") processed aqueous solutions of NaCl or KCl_2 (presumably the latter chemical formula here is a printing error) with electrochemical oxidation at pH 6.5 – 7.5. It was conjectured that, as well as other ions, only the $Cl_2O_6^{2-}$ ion could be present which at that time had been described only in the preceding invention. This dimer contains the chlorine atoms in the +3 and +5 valence states.

On page 5, after line 3 please insert a heading as follows:

GENERAL DESCRIPTION OF THE INVENTION

The paragraphs beginning on page 5, line 4 have been changed as follows:

It ~~was~~ is therefore one object of the ~~present~~ invention to prepare an oxidant without the disadvantages described above. As well as the usual technical, medicinal and disinfectant fields of application, such an oxidant should also offer the possibility of formulation as a medicament for both local and systemic treatment, e.g. for intravenous application as, for example, a drug for tissue regeneration, for wound healing and ~~defence~~ against infections or for enhancing the immune response. Furthermore, it should fulfil the requirements of modern new drug approval procedures.

Particularly, therefore, it was one object of the ~~present~~ invention to prepare a further improved oxidant and an improved process for its manufacture and application.

The paragraph beginning on page 6, line 3 has been changed as follows:

As well as the valence pairs already described previously +3/+5 (WO 00/48940) and +4/+4 (Bogdanchikov et al.), the dichloric acids according to the ~~present~~ invention No. 1 to No. 3 with valences of +6/+4 and +5/+5 for chlorine were manufactured for the first time according to the process of the ~~present~~ invention. The anion of the acid of No. 4 is described in WO 00/48940. The manufacturing process described there, however, does not work.

The paragraph beginning on page 7, line 7 has been changed as follows:

However, the examinations which led to the ~~present~~ invention show that the reaction of peroxochlorate ions O_2ClOO^- with chlorite ions (ClO_2^-) leads surprisingly directly to the palette of „dimeric" $Cl_2O_6^{2-}$ species:

The paragraph beginning on page 7, line 11 has been changed as follows:

Furthermore, surprisingly, with the help of the process according to the ~~present~~ invention, the preparation of the previously unknown peroxochlorite ion, $O{=}ClOO^-$ and the peroxochlorous acid O=ClOOH derived from it is successful - in particular in the solutions containing chlorite according to the ~~present~~ invention.

The paragraphs beginning on page 7, line 20 have been changed as follows:

Insofar as reference is made to anions in the ~~present~~ disclosure, the presence of the necessary counterions (particularly in solution) is included as well. The term "anions" is used in particular to stress that, in solution, the dichlorate is the more stable form compared with the protonated acid. However, the term "anion" can, according to the ~~present~~ invention, and depending on the context, also be used in place of acid. The term "acid" can equally be used in place of [[„]]"anion".

The invention also relates to the process of manufacturing preparations which contain the dichloric acids and their derivatives, anions and/or salts, and/or the peroxochlorous acid according to the ~~present~~ invention and its derivatives, anions and/or salts.

The paragraphs beginning on page 8, line 10 have been changed as follows:

The dichloric and peroxochlorous acids of the ~~present~~ invention, and also the ions which are present at physiological pH values can therefore, according to the invention, also be present as a mixture with peroxochlorate and chlorite in solution. Such a solution containing dichloric acids, peroxochlorous acid, peroxochlorate and chlorite according to the invention, therefore counts among the particularly preferable experimental practice examples of the ~~present~~ invention ~~and is placed under protection in Claim 2~~.

In WO 00/48940, in contrast, chlorite-free solutions were produced in which the dichloric acids and the peroxochlorous acid of the ~~present~~ invention are not contained, or,

chlorite-containing preparations were produced which contained practically only chlorite so that they are unsuitable for pharmaceutical applications.

Because large amounts of chlorite are detrimental to the use of dichloric acids according to the ~~present~~ invention in the pharmaceutical sector, it is especially advantageous if the end-product of the solutions, according to the invention, do not contain chlorite in more than 20-fold excess, preferably in not more than 5-fold excess and even more preferably in not more than a 3-fold excess in percentage by weight related to the total weight of the solution.

The paragraph beginning on page 9, line 3 has been changed as follows:

A further qualitative detection is possible using the reaction with the heme iron. In the presence of the dichloric acids of the ~~present~~ invention, the temporal course of the change in intensity of the Soret bands is clearly different to the results of the solutions which were obtained with the process described in WO 00/48940.

The paragraphs beginning on page 12, line 6 have been changed as follows:

It is appropriate and preferable to store the acid and the salts, according to the ~~present~~ invention, in the dark and to make aqueous solutions with high pH values out of them, e.g. with pH values of 10, 11 or 12 and above, in particular the range of pH 10 to pH 13, in order to ensure a long storage life. Depending on the need, the free acid can be regained from such solutions in the manner described previously and, if necessary, can be converted to solutions with the desired pH value or into salts.

The dichloric acids according to the ~~present~~ invention, their derivatives or anions and salts of these, can be used as they are, but particularly also in aqueous or water-containing solutions, as oxidants for very different medical, cosmetic, technical and agricultural purposes.

The paragraphs beginning on page 12, line 24 have been changed as follows:

The ~~present~~ invention also relates to pharmaceutical preparations which incorporate the dichloric acids or peroxochlorous acid, respectively, according to the ~~present~~ invention, their anions, derivatives or salts as the active substance and which can be used in particular to treat the illnesses mentioned in the introduction. Especially preferential, are preparations for enteral administration such as nasal, buccal, rectal and especially oral administration (preferably avoiding the acid of the stomach, e.g. gastric juice-resistant preparations such as capsules or coated tablets), as well as particularly for local or parenteral treatment, such as intravenous, intramuscular or subcutaneous administration to homothermal animals – in particular humans. The preparations contain the active substance alone or preferably together with one or more pharmaceutically applicable vehicle materials. The dosing of the active substance depends on the illness being treated as well as the species being treated, its age, weight and individual condition, individual pharmacokinetic circumstances as well as the method of application. Preferably, the dosage for the enteral or particularly the parental administration (for example by infusion or injection) (most favourably in humans) lies in the range of 0.01 to 100 pmol/kg, in particular between 0.1 and 100 pmol. Therefore, for example, a person with a bodyweight of 70 kg should receive 1 mg to 1 g/day, in particular between 8.5 mg and 850 mg/day, administered in one dose or split up into several smaller doses. For local application, the preferable dosage range lies between 0.1 and 10, in particular between 0.5 and 5 mL/100 cm^2 of a 0.1 to 10 millimolar solution (correspondingly more or less for larger or smaller surfaces – either applied directly or using, for example, bandages out of impregnated gauze).

Thus the invention also relates to a method - for the prophylactic and/or therapeutic treatment of the pathological conditions described here, in particular for the prophylactic and/or therapeutic treatment of diseases where a strengthening of tissue regeneration, an

immunomodulation, an improvement of vaccination reaction or a radiation sensitisation is indicated and successful, or one or more of these effects, in particular in the treatment of wounds in warm blooded animals - incorporating the administration of the dichloric acids or peroxochlorous acid, respectively, its anions, derivatives or salts, according to the ~~present~~ invention, in an effective dosage against the aforementioned diseases to a warm blooded animal, e.g. a human being who requires such a treatment.

The invention also relates to a pharmaceutical composition - for the prophylactic, and in particular, for the therapeutic treatment of the disease conditions described here, preferably for the prophylactic and/or therapeutic treatment of diseases where a strengthening of tissue regeneration, an immunomodulation, an improvement of vaccination reaction or a radiation sensitisation is indicated and successful, or for one or more of these effects, in particular in the treatment of wounds, preferably of a warm blooded animal who is suffering from such a condition - which contains dichloric acids or peroxochlorous acid, respectively, its anions, derivatives or salts, according to the ~~present~~ invention, in a prophylactically, or in particular, therapeutically effective dosage against the aforementioned diseases and one or more pharmaceutically applicable vehicle materials.

The invention also relates to a procedure - for the treatment of pathological conditions preferably for the prophylactic and/or therapeutic treatment, in particular of a warm blooded animal, especially a human being, where a strengthening of tissue regeneration, an immunomodulation, an improvement of vaccination reaction or a radiation sensitisation is indicated and successful, in particular in the treatment of wounds in warm blooded animals– which incorporates the administration of the dichloric acids, or peroxochlorous acid, respectively, its anions, derivatives or salts, according to the ~~present~~ invention, in an effective dosage against the aforementioned diseases to a warm blooded animal, e.g. a human being who requires such a treatment.

The invention also relates to the use of the dichloric acids and/or the peroxochlorous acid and their derivatives, anions or salts, according to the ~~present~~ invention, in a procedure for the treatment of an animal or human body.

Therefore, the invention also relates to the use of the dichloric acids and/or the peroxochlorous acid and their derivatives, anions or salts, according to the ~~present~~ invention, preferably for prophylactic and/or therapeutic treatment of diseases, in particular of a warm blooded animal, especially a human being, where a strengthening of tissue regeneration, an immunomodulation, an improvement of vaccination reaction or a radiation sensitisation is indicated and successful, in particular in the treatment of wounds.

The invention also relates to the use or a method for the use of the dichloric acids and/or the peroxochlorous acid and their derivatives, anions or salts, according to the ~~present~~ invention, for the (cosmetic) care of the skin, for example when a person has a tendency to develop spots and pimples (e.g. acne) or if pimples are present.

Dosage unit forms are e.g. dragées, tablets, ampoules, vials, suppositories or capsules. Further administration forms, in particular for solutions of the dichloric acids and/or the peroxochlorous acid and their derivatives, anions or salts, according to the ~~present~~ invention, are e.g. ointments, creams, pastes, gels, foams, mouthwash, drops, sprays and similar. The dosage unit forms, e.g. ampoules, tablets or capsules, contain preferably between about 0.05 g to about 1.0 g, in particular from 8.5 mg to 850 mg, of a salt of the dichloric acids their anions or derivatives according to the ~~present~~ invention with the usual pharmaceutical vehicle materials.

The pharmaceutical preparations of the ~~present~~ invention were essentially manufactured in the known manner, e.g. using conventional mixing, granulating, coating, dissolving or lyophilising methods.

The paragraph beginning on page 15, line 11 has been changed as follows:

In order to make a preferential formulation of a drug for topical use, the method of choice is to dissolve the dichloric acids and/or the peroxochlorous acid or their derivatives, according to the ~~present~~ invention, as salts in bidistilled water with concentrations in the lower millimolar or in the upper micromolar range – preferably in the concentration range of 0.5 - 5 mM with the pH equal to or > 10, in particular 10 to 13, most preferably e.g. pH 11.5 and adjust the solution to isotonie with glycerine or common salt or another suitable well-tolerated, preferably physiological agent. Before application, a physiological pH is set with HCl. Further additives are possible. In particular, in connection with the filling of the medicament into plastic containers, such additives are suitable which can neutralise traces of transition-metals, because, during storage, transition-metals in the walls can be dissolved and can catalyse a degradation of the active substance. Examples of such additives are oligo and polyalcohols, such as ethylene glycol, desferrioxamine or EDTA (e.g. as disodium EDTA). The solution which is obtained in the above manner can also be applied directly to wounds.

On page 16, after line 16 please insert a heading as follows:

BRIEF DESCRIPTION OF THE DRAWINGS

The paragraph beginning on page 16, line 29 has been changed as follows:

Figure 2 shows the titration of the anions of the peroxo acids (dichloric acid, peroxochlorous acid) present in the solution to determine the concentration of the acid ions. In ~~figure~~ Figure 3, the titration curve derived from ~~figure~~ Figure 2 is shown which provides exact concentration determination.

The paragraph beginning on page 17, line 7 has been changed as follows:

In ~~figure~~ Figure 7, the results of an ion chromatography are shown. The retention times of reference substances are provided in Example 4 part 5. The dichloric acid is detected

at 19.77 min, whereby no chlorate (ClO_3^-) is determined which excludes chlorate as the cause of the peak in the mass spectrum at 82.3 in figure 6.

On page 17, after line 13 please insert a heading as follows:

DETAILED DESCRIPTION

On page 17, line 16, please insert a heading as follows;

EXAMPLES